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demodulation means for demodulating data transmitted from the respective communication terminals on the basis of the correlation, taking into account interference among the signals transmitted from the communication terminals.

3. A communication device according to Claim 1,
wherein the signals transmitted from the communication
terminals are generated by modulating data by means of M-ary
orthogonal modulation.

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

7. A communication device according to Claim 6,

conversion means for making a conversion of the

correlation using the inverse matrix of the correlation matrix indicating the correlation among pulses at possible positions in the transmitted signals; and

detection means for detecting a suboptimum symbol or a suboptimum symbol sequence on the basis of the output of the conversion means.

8. A communication device according to Claim 6, wherein the demodulation means converts the correlation such that the mean square error becomes minimum and detects the suboptimum symbol or the suboptimum symbol sequence on the basis of the converted correlation.

9. A method of communication with a plurality of communication terminals, comprising the steps of:

calculating the correlation between a received signal corresponding to signals transmitted from a plurality of communication terminals by means of UWB (Ultra WideBand) communication and pulses at possible positions in a signal transmitted from each communication terminal; and

demodulating data transmitted from the respective communication terminals on the basis of the correlation, taking into account interference among the signals transmitted from the communication terminals.

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11. A storage medium storing a program used by a computer to perform communication with a plurality of communication terminals, the program comprising the steps of:

demodulating data transmitted from the respective communication terminals on the basis of the correlation, taking into account interference among the signals

